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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,432	10/01/2003	Ananth Madhavan	2566-210	5660

6449 7590 07/26/2005

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EXAMINER

BASHORE, ALAIN L

ART UNIT PAPER NUMBER

1762

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/674,432

Applicant(s)

MADHAVAN ET AL.

Examiner

Alain L. Bashore

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. The current status of a hyperlink does not mitigate the status at the time of filing or re-activation at a later date, all of which could be inferred to as improper incorporation by reference.

2. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant has indicated on the record that the use of endnotes in the specification is an incorporation by reference.

Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

The endnotes are required to be incorporated into the specification. No new matter is to be entered. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1, 3-4, 9-10, 14, 16-17, 22-23, 27, 29-30, 35-36, 40, 42-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the independent claims there is claimed "investment institution" which is vague and indefinite. What is considered an investment institution varies from time to time. The meets and bounds of what is and is not included as such must be set forth.

In claims 3, 9, 16, 22, 29, 35, and 42 there is claimed "the formula" that lacks antecedent basis; the use of the variable  $e$  sub  $v$ , which lacks definition, and the term "assumed" which is indefinite.

In claims 4, 10, 17, 23, 30, 63, and 43 there is claimed step c using what appears to be the copyright symbol rather than the use of "c".

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-26, 40-51 are rejected under 35 U.S.C. 101 as non-statutory because the method claims as presented do not claim a technological basis. Without a claimed basis, the claims are interpreted as involving no more than a manipulation outside of a technological art and therefore non-statutory under 35 U.S.C. 101.

In contrast, a method claim that includes in the preamble and body of the claim structural / functional interrelationships that are solely by computer (and non-trivial) are considered to have a technological basis and thus within the technological arts [See *Ex parte Bowman*, 61 USPQ2d 1669, 1671 (Bd. Pat. App. & Inter. 2001) – used only for content and reasoning since not precedential].

Claims which are broad enough to read on statutory subject matter and on nonstatutory subject matter are considered nonstatutory [see *In re Lintner*, 458 F.2d 1013, 1015, 173 USPQ 560, 562 (CCPA 1972)].

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1, 6-8, 12-14, 19-21, 25-27, 32-34, 38-41, 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noser et al in view of Vanfladern et al.

Noser et al discloses collecting security transaction data for a pre-selected period of time for a plurality of investment institutions (para 0037), said transaction data including identity of securities being traded, transaction order sizes, execution prices and execution times (para 0085-para 0086). The transaction data is grouped into a plurality of orders (time stamp data) and the transaction costs are estimated for each investment institution where the data is stored.

Noser et al does not disclose calculating a plurality of cost benchmarks for each of said plurality of orders and where the estimating transaction costs for each institution is further relative to the cost benchmarks.

Vanfladern et al discloses time stamp data as related to benchmarks for programming applications (col 12, lines 18-36).

It would have been obvious to one with ordinary skill in the art to include calculating a plurality of cost benchmarks for each of said plurality of orders and where the estimating transaction costs for each institution is further relative to the cost benchmarks because Vanfladern et al teaches benchmarks are important to collection of internal data to testing (col 1, lines 55-67).

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9. Claims 2-5,9-11,15-18, 22-24, 28-31, 35-37, 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noser et al in view of Vanfladern et al as applied to claims above, and further in view of Werner (paper entitled "NYSE Execution Costs").

Noser et al and Vanfladern et al do not disclose a regressing step.

Werner discloses a regression step (p 23-30).

It would have been obvious to one with ordinary skill in the art to include a regression step because Werner teaches that regression analysis for purposes of controlling variables likely to influence spreads (p23).

### ***Response to Arguments***

10. Applicant's arguments filed have been fully considered but they are not persuasive. Since there is a rejection to indefiniteness for "investment institution", arguments regarding claim recitations including such will be re-considered after response to the newly added 35 U.S.C 112, second paragraph rejection. Arguments regarding technical basis are related to clearly claiming what of at least one step is computer implemented. If applicant regards possession of entire claim language practiced without technical means (i.e.: entirely by hand), please state on the record.

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**Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Regarding all Class 705 applications, the management contact regarding examination is: Vincent Millin (SPE, art unit 3624) at 571-272-6747.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alain L. Bashore  
Primary Examiner  
Art Unit 1762